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INTERNAL MARBLE WORK
OF
CORN EXCHANGE NATIONAL BANK
CHICAGO, ILLINOIS

BY
FRANK LO^RSEN DAVIS

THESIS FOR THE DEGREE OF BACHELOR OF SCIENCE
IN ARCHITECTURE
IN THE
COLLEGE OF ENGINEERING
OF THE
UNIVERSITY OF ILLINOIS

Presented June, 1909



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THIS IS TO CERTIFY THAT THE THESIS PREPARED UNDER MY SUPERVISION BY

FRANK LOREN DAVIS

ENTITLED Internal Marble Work of Corn Exchange National Bank,

Chicago, Illinois

IS APPROVED BY ME AS FULFILLING THIS PART OF THE REQUIREMENTS FOR THE DEGREE

OF Bachelor of Science in Architecture

As of the Class of 1888

W. C. Clifton

HEAD OF DEPARTMENT OF

Architecture



CORN EXCHANGE BANK BUILDING.

The Corn Exchange Bank Building is situated on the northwestern corner of La Salle and Adams streets in Chicago, Illinois.

It is utilized for stores on the first floor, for the Bank and its departments on the second, third and fourth floors and for general offices above. The horizontal dimensions are 186' - 6" x 74' - 8" and it is sixteen stories high above the sidewalk.

The approximate cost of this building is \$2,500,000.

My work in this building consisted of preparing the quantities, making the drawings, with the necessary working schedules, and selecting, manufacturing and installing all the marble work throughout the building, as partially illustrated in these photographs.

For which I received approximately \$200,000.

The principal marbles used were Hauteville, Breche Violet and Verd Antique.

The Hauteville quarries are situated at Hauteville, a small city in the French Jura mountains, about four thousand feet above the sea level, and not far from Geneva, Switzerland.

The Commune of Hauteville is the proprietor of the quarries, which partly surround the city in a semicircle extending several miles. Each freeholder originally had a right to quarry by paying a royalty to the Commune, and they found a large market for their products in France and other countries, where this material gained steadily in favor on account of its uniform quality and soundness.

These quarries were thus operated for several hundred years, but the old methods of quarrying proved insufficient to meet the increasing demand for reliable material of large sizes. The Commune of Hauteville not

being in position to advance money to its citizens, they leased the sole concessions for quarrying their marble to a firm in Lyons, which equipped all the important quarries with modern machinery, thus enabling them to furnish large quantities of this material in a comparatively short time.

The Hauteville marble is yellow and because of its uniformity in tone and texture, as well as its warm coloring, it is well adapted for use in connection with highly colored marbles for decorative purposes, as has been done in this building.

Many public and private buildings in Lyons, the beautiful Casino at Aix-les-Bains, the Casino at Vichy with the beautiful balustrades, the celebrated old palaces at Avignon, the Notre Dame at Marseilles and the Court House in Geneva, have been exclusively built of the material coming from these quarries.

In the Appennine mountains, surrounding a small valley formed by the rivers Serre and Vezza, marbles have been quarried for centuries, but none of them are as rich and beautiful in color as the Breche violet marble, of which there are two quarries near Stazzema, an ancient village with hardly more than five hundred inhabitants, all of whom are occupied in quarrying this material.

The difficulties and the tedious work in obtaining the Breche violet marble, which has been employed in this building, can hardly be described. The marble is quarried in a cave and only a layer of from three to five feet in thickness is adaptable for high class work. Nature provides a safe protection by surrounding it with other layers of a hard, calcareous material, which has to be removed by careful drilling and quarrying. As soon as a ledge of good marble is laid bare, wire saws divide it into merchantable and transportable blocks.

It is necessary to slide them down the mountain side two or three thousand feet over a specially constructed road, holding them in check with heavy cables and ropes. When they safely reach the wagon roads, they are loaded on carts drawn by fifteen to twenty yokes of oxen, which haul them to the seashore, where they are loaded on sailing boats and delivered to the steamers at Leghorn and thence transported to New York.

The larger blocks used in this building measured over eighteen feet long, weighing about twenty tons, and they had to be worked in the most careful manner in order to preserve the beauty of the material and produce an uniform effect.

As may be noted by examining the photographs, the Breche violet marble is inlaid into the Hauteville marble for the newell posts of the stairway. This marble is difficult to cut, owing to its formation, and these pieces could only be successfully finished by using carborundum, the latest method for working expensive marbles of this nature.

In order to get this selection of Breche violet marble, only the best blocks were taken to begin with, and only the portions of them were utilized, that would give a rich uniform effect. The companion columns in each instance were taken from one block.

The Aegean Archipelago contains a small island, where for centuries the Verde Antique marble has been quarried. In the time of Nero, thousands of slaves worked there in preparing the blocks, dragging them from the quarries to the seashore and loading them on boats to be carried across the sea, so that they could be employed in beautifying his palaces.

The quarries are now worked in much the same manner as in ancient times, except by free men instead of slaves, and the marble, after it is carried to the seashore, is loaded on barges and transported to Piraeus,

and then it is distributed to the different ports of the world.

This material is sound, of a strong, deep green color, interrupted by white and light green spots and sometimes by dark green spots, and therefore it is a most decorative marble.

The blocks used for this bank were carefully selected from a large stock at the quarry, and after arriving here, only the most uniform of these were employed in this work.





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